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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/852,077	05/09/2001	Michiaki Sakamoto	12873A	4429

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EXAMINER


NGUYEN, DUNG T

ART UNIT PAPER NUMBER

2871

DATE MAILED: 04/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/852,077	SAKAMOTO, MICHIAKI	
	Examiner	Art Unit	
	Dung Nguyen	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26 and 28-43 is/are pending in the application.
- 4a) Of the above claim(s) 28-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26, 42 and 43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's amendment dated 01/15/2004 has been received and entered. By this amendment, claims 26 and 42-43 are still pending in the application; claims 28-41 are withdrawn from consideration.

Applicant's arguments with respect to claim 26 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 26 and 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al., US Patent No. 5,852,485, in view of Shim et al., US Patent No. 6,181,402, Xu et al., US Patent No. 6,023,317 and Kakinuma et al., US Patent No. 5,721,597.

Regarding the above claims, Shimada et al. disclose an in-plane switching liquid crystal display (LCD) device having:

- . a pair of substrate (21, 212);
- . a protection layer (e.g., gate insulating film 23) formed over substrate (21)
- . a thin film transistor (TFT);
- . a color filter (218) formed over the protection layer (23);
- . a liquid crystal layer (217) formed between the color filter (218) and substrate (212);
- . a common electrode (213) and a pixel electrode disposed between the color filter and the liquid crystal layer;

. an alignment layer (216).

Shimada et al. neither disclose the vertical orientation films, an insulating layer forming between the pixel electrode and the common electrode nor compensation film forming between a substrate and a polaziring film, nor an organic material comprising monomers or olygomers added into the liquid crystal, and polymerized such liquid crystal compound.

Shim et al. disclose a homeotropic LCD device by forming vertical alignment layers as shown in figure 3A. Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to modify the Shimada et al. device having a vertical alignment layer as shown by Shim et al. in order to obtain an LCD device having a wide viewing angle (col. 2, line 11). In addition, one skilled in the art would have realized the desire to form an interlayer between two electrodes (e.g, pixel and common electrodes in different layers) for insulating such two electrodes. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to form a common electrode under an insulating layer and a pixel electrode over the insulating layer in order to avoid cross-talk between two different electrodes.

Xu et al. do disclose in figures 1-3 that an optical compensation film (e.g, positive or negative) can be disposed between a substrate and a polaziring film. Therefore, it would have been obvious to one skilled in the art to employ the optical compensation film in the Shimada et al. device in order to improve viewing characteristics (Xu et al., abstract).

Kakinuma et al. disclose a liquid crystal layer can be formed by mixing monomers (or olygomers) into the liquid crystal, then polymerizing such liquid crystal compound (col. 6, lines 36-39). Therefore, it would have been obvious to one skilled in the art to employ the Shimada et al. liquid crystal layer by polymerizing a liquid crystal compound including liquid crystal and

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monomers or oligomers in order to improve the high speed response in an LCD device (col. 10, ln. 21).

It should be noted that the method of manufacturing the device is merely a list of forming each component and each component must be formed to make the device; therefore, the method of manufacturing would be inherent to the device. In addition, the limitation of "by light irradiation" in claim 26 does not have patentable weight, since Applicant has received an action on the merits for the originally presented invention (e.g., rubbing method), this invention has been constructively elected by original presentation for prosecution on the merits. In other words, such limitation withdrawn from consideration as being directed to a non-elected invention.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Nguyen whose telephone number is 571-272-2297. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DN
04/15/2004



Dung Nguyen
Primary Examiner
Art Unit 2871